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the department of public health.) Twelve cases were reported by Purdy in the Upper Huon district, Tasmania, in January, 1912.

Victoria.—In the autumn of 1908 an outbreak of poliomyelitis occurred in Victoria (described by H. D. Stephens), 108 cases with 6 deaths being recorded. Most of the cases occurred in densely populated districts. The season was exceptionally dry and warm. The outbreak began in April and ended in June. One case resembled Landry's paralysis. A small outbreak occurred at about the same time at Bendigo.

PUBLIC HEALTH ADMINISTRATION IN QUINCY, ILL.

By CARROLL FOX, Surgeon, United States Public Health Service.

The following report gives the results of a study of public health organization and administration in the city of Quincy, Ill. The study includes investigations in both the office and the field and was carried on throughout a period of about two weeks, from April 16, 1917, to May 1, 1917.

Quincy is situated on the Mississippi River and is the county seat of Adams County. It is about 262 miles southwest of Chicago and about 100 miles west of Springfield.

It is served by two systems of railroads—the Chicago, Burlington & Quincy Railroad, and the Wabash—and by steamboat packets plying on the Mississippi River.

Quincy is provided with a beautiful park system and its topography is such that from the standpoint of city planning and the city beautiful the possibilities are great.

Quincy is a manufacturing center, and is surrounded by agricultural country. Among its industries of magnitude may be mentioned the manufacture of stoves and ranges, governors and pumps, farm machinery and implements, elevators, strawboard, incubators, furniture and fixtures, wagons, automobile bodies, breakfast foods, flour, shoes, boilers and structural steel, etc.

The population of Quincy, as estimated by the United States Census Bureau for July 1, 1916, is 36,798, there being an increase of population over the census of 1910 of but 204.

For information and assistance received while making the study, I am indebted to the officials of the health and other city departments, and to other citizens interested in the welfare of the community.

ORGANIZATION AND ADMINISTRATION.

The city of Quincy is governed by a mayor and council.

The health organization of the city is known as the health department, and is under the control of a board of health, comprising two

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physicians and two councilmen, appointed by the mayor, and the chief of police, who is president of the board. Subordinate to the board of health, there are a commissioner of health, who is appointed by the mayor, and a clerk, appointed and paid by the commissioner. The employees engaged in the collection of garbage are paid from health-department funds. In addition, the switchboard operator of the police department is classified as secretary of the board of health and paid from health-department funds, but his duties are in no way concerned with the health department. The chief of police, as president of the board, receives an allowance of \$150 per annum from health funds.

Commissioner of health.—The commissioner of health is a full-time official who receives \$660 per annum. In addition, he is given certain allowances amounting to \$460, out of which he must pay the salary of his clerk (\$360). As local registrar, he receives the customary fees from the county.

The commissioner is not a physician, and his experience has been gained during the four years in which he has occupied the position. His duties are principally concerned with the enforcement of law and regulations relating to the control of the communicable diseases, the abatement of nuisances, and food inspection.

Office hours of the health department.—The health department is provided with two rooms in the city hall. The office remains open from 8 a. m. until 5 p. m. every day except Sundays and holidays. At such times the commissioner is usually present at least a part of the day. By arrangement, undertakers may secure burial permits when the office is closed.

Transportation.—The commissioner of health has provided himself with a horse and buggy which is maintained at the expense of the city in the barn provided for the housing of the equipment used in garbage collection.

Dissemination of information.—The campaign of education in public health so necessary in every community has been overlooked in Quincy. With a reorganization of the health department, this matter should be gone into intensively.

Discussion.—It is certain that the health department of Quincy is not in a position to perform the duties required of a modern health department. Its organization is bad; it is without money and men. The board of health should be abolished and a full-time health officer appointed to be directly responsible to the mayor, and to hold his office during efficiency. He should have previous experience in public health work, and should be a physician in order to carry on the professional work that will be referred to later on. He should not be permitted to engage in the private practice of medicine. The

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health officer should have the same standing in the city government as other officers in charge of departments, as, for instance, the chief of police, the chief of the fire department, etc.

He should immediately inaugurate a campaign of education by talks at various places and newspaper articles, so that the people may become familiar with the work and aims of the health department and their cooperation be secured. Without the cooperation of the people a health department can accomplish little.

The health officer should be made registrar of births and deaths.

REGISTRATION OF BIRTHS AND DEATHS.

The registration of births and deaths is carried on under the authority of State law. The commissioner of health has been appointed local registrar for the city of Quincy and the township of Riverside.

Original certificates are transmitted to the State board of health, copies are made in a book for the files of the local health department, and transcripts are filed with the county clerk annually.

Registration of deaths.—Six hundred and ten deaths were reported as occurring in the city of Quincy during the year 1916, making an indicated crude death rate of 16.5 per thousand. Three hundred and seventeen deaths, or 52 per cent, were due to causes that might be classed as preventable.

There were registered during the same period 57 deaths in children under 1 year of age, indicating an infant mortality rate of 96.6 per thousand registered births.

Registration of births.—Five hundred and ninety births were reported as occurring in the city of Quincy during the year 1916, making an indicated birth rate of 16 per thousand. The birth rate is less than the death rate, signifying that not all births occurring in the city are reported. This is a matter for careful investigation by the health authorities.

| Diseases. | Total preventable deaths, all ages, registered. | Indicated death rate per 100,000 population. | Number cases reported. | Fatality rate per 100 cases. | Total registered deaths, infants under 1 year. |
|--------------------------------|---|--|------------------------|------------------------------|--|
| Tuberculosis, pulmonary..... | 65 | 176.6 | 0 | ..... | 0 |
| Tuberculosis, other forms..... | 8 | ..... | 0 | ..... | 0 |
| Typhoid fever..... | 2 | 5.4 | 7 | 23.5 | 0 |
| Diphtheria..... | 6 | 16.3 | 45 | 13.3 | 1 |
| Measles..... | 12 | 32.6 | 804 | 1.5 | 1 |
| Scarlet fever..... | 0 | 0 | 7 | ..... | 0 |
| Whooping cough..... | 1 | ..... | 0 | ..... | 0 |
| Influenza..... | 16 | 43.4 | | | 1 |
| Tetanus..... | 2 | | | | 0 |
| Infantile paralysis..... | 1 | | 0 | | 0 |
| Erysipelas..... | 1 | | 2 | | 0 |
| Pneumonia..... | 69 | 187.5 | | | 8 |

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| Diseases. | Total preventable deaths, all ages, registered. | Indicated death rate per 100,000 population. | Number cases reported. | Fatality rate per 100 cases. | Total registered deaths infants under 1 year. |
|---|---|--|------------------------|------------------------------|---|
| Chicken pox. | 0 | ..... | 54 | ..... | 0 |
| Smallpox. | 0 | ..... | 2 | ..... | 0 |
| Septicemia. | 4 | ..... | ..... | ..... | 0 |
| Meningitis. | 6 | ..... | 1 | ..... | 1 |
| Diarrhea and enteritis. | 9 | ..... | ..... | ..... | 3 |
| Syphilis. | 4 | ..... | ..... | ..... | 0 |
| Bronchitis. | 13 | ..... | ..... | ..... | 4 |
| Occupational accidents and diseases. | 3 | ..... | ..... | ..... | 0 |
| Other accidents. | 15 | ..... | ..... | ..... | 0 |
| Malignant growths. | 42 | 114.1 | ..... | ..... | 0 |
| Premature. | 14 | ..... | ..... | ..... | 14 |
| Malnutrition. | 5 | ..... | ..... | ..... | 5 |
| Other causes. | 19 | ..... | ..... | ..... | 19 |
| Total. | 317 | ..... | ..... | ..... | 57 |

EPIDEMIOLOGICAL ACTIVITIES.

The Report of Diseases.

Diseases are reported under the authority of State law and regulations of the State board of health.

Physicians report the occurrence of a notifiable disease by telephone. The information obtained is entered in a book which shows the name of the disease, date, name, age, sex, color, and address of patient and the physician's name.

In the case of smallpox, scarlet fever, diphtheria, epidemic cerebrospinal meningitis, poliomyelitis, typhoid fever, bubonic plague, cholera, yellow fever, and typhus fever, a report is made to the State board of health on a special form or by telegraph followed by letter within 24 hours after notification by the physician. Other diseases are reported to the State board of health monthly.

The Control of Disease.

The reportable diseases are placed in two classes as follows:

TO BE QUARANTINED AND PLACARDED.

| | |
|-----------------------------|-------------------------------|
| Smallpox. | Cerebrospinal fever. |
| Scarlet fever. | Meningitis (epidemic). |
| Scarlatina. | Asiatic cholera. |
| Diphtheria. | Bubonic plague. |
| Membranous croup. | Leprosy. |
| Chickenpox. | Typhus fever. |
| Measles. | Yellow fever. |
| Whooping cough. | Rocky Mountain spotted fever. |
| Poliomyelitis (acute inf.). | |

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SUBJECT TO A MODIFIED QUARANTINE.

| | |
|----------------------|------------------------|
| Typhoid fever. | Ophthalmia neonatorum. |
| Paratyphoid fever. | Trachoma. |
| Dysentery-amebic. | Pellagra. |
| Dysentery-bacillary. | Puerperal fever. |
| German measles. | Rabies (hydrophobia). |
| Mumps. | Tetanus. |
| Septic sore throat. | Glanders. |
| Malaria. | Anthrax. |
| "Continued fever." | Trichinosis. |
| Hookworm disease. | Actinomycosis. |
| Tuberculosis. | |

Typhoid fever is a placardable disease.

There is practically no epidemiological study made of any disease and there are no epidemiological records on file in the board of health. The commissioner of health placards the house, enforces the quarantine, and performs the terminal fumigation and other procedures required by regulations of the State board of health.

A certificate is furnished to children giving them authority to return to school after quarantine has been raised.

Typhoid fever.—During the year 1916 there were seven cases of typhoid fever reported with but two deaths. One death occurred in a case that was introduced from the outside. Including this case, the death rate from typhoid fever was but 5.4 per 100,000. The city has used filtered water for many years, but previous to 1914 the plant was of an old type and the intake was badly located with reference to a sewer outlet, and typhoid fever was more or less prevalent. During the year 1913 there were 24 deaths from typhoid fever apparently originating in the city, making a death rate of 65.4 per 100,000 population. Upon investigation, sewage was found to be gaining admission to the intake pipe; this was corrected by extending the pipe out some distance into the river. In 1914 a new filter plant was put into operation. Since the institution of these changes the typhoid death rate has steadily decreased. At the present time Quincy is fortunate in having a good city water supply and but few surface wells. The insanitary privy and the manure pile, however, are common, and it is believed that by eliminating the two latter sources of danger and requiring the pasteurization of all milk, Quincy could establish an enviable record as regards typhoid fever.

Tuberculosis.—The registered death rate from pulmonary tuberculosis during the year 1916 was 176.6, there having been 65 deaths reported. During the same period there were 8 registered deaths from other forms of tuberculosis, making an indicated death rate from tuberculosis, all forms, of 198.3 per 100,000 population. This

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death rate is very high and shows the necessity for the health department to carry on active work along the line of tuberculosis prevention.

There is at present no place for the isolation of the tuberculous, but plans are laid for the construction of a county sanatorium in the near future.

At one time the local Antituberculosis Society operated a dispensary and employed a nurse. This commendable effort to do something for the people was not appreciated, however, and for lack of support and patronage the work was discontinued.

Other diseases.—Next to tuberculosis, all forms, pneumonia gave the highest number of registered deaths, with a death rate of 187.5 per 100,000 population, followed by malignant growths with a death rate of 114.1; influenza 43.4; measles 32.6 and diphtheria 16.3.

There were but two cases of smallpox reported during 1916, although during the year 1915 there were 300 reported cases. There were no deaths.

The isolation hospital.—The isolation hospital is a 10-room brick structure, pleasantly located in one of the city parks. Its capacity is about 30 beds and segregation could be readily secured. It is now used for the isolation of smallpox only. It is not provided with modern plumbing; water is derived from a cistern but is not supplied under pressure. Sewage is disposed of in an insanitary privy. At present there are no patients undergoing treatment in the hospital. At the time of inspection the building was in a disgracefully dirty condition. No caretaker is provided.

One of the local hospitals of the city has constructed an isolation hospital on its grounds to be used for the isolation of any communicable disease that may develop within the institution. Outside cases are occasionally taken at the rate of \$5 per day. This isolation hospital will accommodate about eight patients.

Public health nursing.—There is but one nurse in the city engaged in work of this kind and she is employed by the Cheerful Home, a charitable organization which cares for children whose mothers go out to work during the day. This nurse is principally engaged in prenatal and child welfare work and to some extent in the activities concerned with antituberculosis work.

Diagnostic Laboratory.

There is no diagnostic laboratory, but a laboratory for the bacteriological examination of water has been fitted up in the building occupied by the water purification plant. Water examinations are now made by the superintendent of the water works.

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Discussion.

Having provided for a health officer it then becomes necessary to furnish him with machinery and men to carry on the work of his department efficiently and effectively.

In order to control the communicable diseases it is necessary to exercise careful supervision over the sick person, for it is the individual suffering with a communicable disease or harboring the causative organism who is the real danger to the community. He it is who spreads his infection through the fresh discharge from his mouth, nose, throat, intestines, etc., to those with whom he comes in contact.

There are therefore needed, a bacteriologist and a staff of public health nurses. This staff should be composed of two nurses to be paid by the health department, one nurse to be paid by the school board, and the nurse employed by the Cheerful Home. A combination of this kind, a correlation of public health nursing functions so that all are centralized under one directing head, is in line with modern ideas on the subject.

The equipment in the water laboratory at present used by the water department should be added to and the laboratory transformed into a diagnostic laboratory to be used by the bacteriologist for the mutual benefit of the water and the health departments.

In addition to the above, there is also required a sanitary inspector, whose duties are the abatement of nuisances which have a direct bearing on the public health, as for instance insanitary privies and accumulations of manure. In a report of this kind, it is not practicable to go into details as regards the duties of the various officials.

There are also needed two hospitals, one for the isolation of the tuberculous and one for the isolation of cases of other communicable diseases. Plans are already laid for the first. The second could readily be obtained by utilizing the hospital at present used for small-pox only. The building needs some repairs and a modern sewage disposal system and water supply. It could readily be converted into a very satisfactory isolation hospital.

The health department should also operate an antituberculosis as well as a child-welfare dispensary, with the health officer and a nurse in attendance during dispensary hours.

MUNICIPAL ENGINEERING ACTIVITIES.

The Disposal of Garbage and Refuse.

Garbage is collected by the city and disposed of by dumping into the Mississippi River.

The equipment consists of five covered wooden wagons of about 2½ cubic yards capacity each. The number of wagons actually in

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use depends upon the time of year. There are also 10 horses maintained by the city. These have been transferred from the fire department and are stabled in a rented barn. The number of men employed on the wagons depends upon the number of wagons in use. Each receives \$2 per day while actually employed. The barn man receives \$40 per month.

Collections are made rather irregularly, perhaps once a week, from residences only. The service is discontinued during bad weather. Commission houses, grocery stores, butcher shops, and the like must have garbage removed at their own expense. Garbage from hotels and restaurants is usually taken by farmers and fed to hogs.

During the year 1916 there were removed 1,930 loads of garbage. This is the only figure available, but for practical purposes it may be estimated to represent about 3,136 tons, or about one-half of the garbage actually produced in the city. During the same period there was spent by the board of health for garbage collection, \$5,229.13, or \$2.70 per load, approximating \$1.66 per ton collected.

Inspection of the city shows that many householders have neglected to provide themselves with proper garbage receptacles.

The health department is also made responsible for the removal of dead animals. Carcasses of large animals are removed by a private rendering establishment. Carcasses of small animals are removed by the health department.

There is no ordinance providing for the care and disposal of manure. In the stables inspected, manure was found to be handled in a very careless manner with every opportunity for the breeding of flies.

There is no provision made for the collection of rubbish except at the annual clean-up.

Discussion.—The city should organize a service department to have charge of the cleaning of streets and the collection and disposal of garbage and rubbish, dead animals, and night soil.

The present methods of garbage collection should be improved and amplified. All garbage should be collected and disposed of by incineration. This would mean an increase in equipment and the erection of an incinerating plant. The provisions of State law authorizing cities under 100,000 to levy a 2-mill tax for this purpose should be utilized. At the same time a system of rubbish collection, including manure, should be inaugurated, and rubbish collected regularly. Rubbish should be used to fill in the low places within the city limits. Valuable land may be reclaimed in this way. A man should be employed to supervise the dumping so that a nuisance may be avoided.

The State board of health is in a position to give valuable advice relative to matters concerning garbage and rubbish collection and

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disposal, and it should be called upon for assistance before any final action is taken.

Water Supply.

The water supply of the city is derived from the Mississippi River. The intake is located well away from any sewer outlet. The water is pumped into coagulation basins, of which there are two used in series. From two and one-half to seven grains of alum are used as the coagulant, part of it being introduced in the first basin and part in the second. There are six filter beds, modern in construction. The plant has a capacity of six million gallons a day. For present needs one and one-half million gallons suffices. Water is furnished to the city under direct pressure and from a storage and distributing reservoir with a capacity of eighteen million gallons. Filtration is supplemented by the use of chlorine. By this combined method of treatment the efficiency of the plant runs from 97 to over 99 per cent. Daily bacteriological checks are kept on the process in a laboratory which has been fitted up in the building occupied by the plant. These bacteriological examinations are made by the superintendent of the water works. Monthly examinations are made in the State laboratory at Urbana.

Cistern water is used in the city, but the surface well is the exception rather than the rule.

Disposal of Sewage.

The city of Quincy is elevated well above the level of the river and natural drainage is therefore good. It is fairly well provided with sewers, both storm water and sanitary, except in a section which, because of its topography, can not be drained into the present system and which will require the construction of a separate sewer system. The storm water and waste from this section of the city are at present being carried off by natural channels. Sewers empty their contents into the Mississippi River untreated.

There are throughout the city a number of houses using cess-pools, and also a number connected to the sewer through the catch-basin system similar to the method that has been described for Toledo, Ohio.¹ A sewer connection of this kind is no better than a cesspool; both should be eliminated and proper sewer connections insisted upon.

A plumbing inspector has been employed by the city since June 30, 1914. During this time there have been 485 buildings connected to the city sewers with complete bathroom installation, flush closet,

¹Public Health Reports, June 25, 1915, p. 1890. Reprint No. 284, p. 22.

tub, and lavatory. Two hundred and eighty of these connections were in new and 205 in old buildings.

In requiring sewer connections for houses owned by the poor it might be pointed out that such could be made by the city and plumbing installed, using the same procedure as that used in street construction, namely, charging the cost of same as a lien against the property and permitting the property holder to pay on easy installments.

It is a common practice to connect down spouts with the sanitary sewers. This should be discontinued by city ordinance, as these sewers have not been planned to carry the additional burden.

HEALTH SUPERVISION OF SCHOOLS.

At one time the board of education employed a school nurse in an attempt to exercise some health supervision over the pupils of the public schools, but because of the discouraging attitude of the people the work was discontinued and has never been resumed. Work of this kind is not likely to be received with favor until the people are educated up to it; then they would not do without it. The work should be carried on again by the school authorities in cooperation with the health department. The school board should operate a dental and an eye, ear, nose, and throat clinic and engage the services of a dentist and a specialist to perform the necessary work for pupils whose parents can not afford to pay for it. The school board should also employ a nurse and attach her to the health department, this nurse and the other nurses of the health department, together with and under the supervision of the health officer, to exercise a general supervision over the health of pupils of public and parochial schools in addition to performing other work of a public-health nature.

It would also be well for the school authorities to establish an open-air school, or at least an open-air class.

FOOD INSPECTION.

The commissioner of health, in addition to his other duties, exercises some supervision over the milk supply as well as over other foods and places handling foods. It is obvious, however, that one man can not carry on all of the activities of a health department except superficially.

The milk supply.—An ordinance has recently been passed by the city council providing for the maintenance of the purity of milk. In this ordinance provisions are made for the licensing of milk dealers; for the inspection of producing farms or other places handling milk; for the collection of samples; and for the labeling

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of cans, bottles, wagons, etc. It is required that milk must be sold in original containers; that barns must be properly lighted and ventilated; that they must have a floor of impervious material, etc.; and that there must be a separate milk house. Adulterated milk is defined and provision is made for exclusion where milk comes from diseased cows or where a person handling the milk is suffering from a communicable disease, etc.

There are said to be 125 farms supplying milk to Quincy. A few of these farms were inspected. None of them would score very high; some were very primitive. The impression was obtained, however, that most of the producers were willing to accept suggestions, and that a good dairy inspector, through cooperation, could succeed in getting them all to apply the principles of cleanliness, thus producing a clean milk with a minimum expense for equipment, alteration, or new construction.

To produce a milk free from the possibility of transmitting disease, pasteurization should be insisted upon. At present there are three pasteurizing plants in the city, all using the holding method. By careful technique, all should be able to furnish a safe milk.

Other foods.—There are three slaughterhouses located within and just without the city limits. These were inspected. No ante or post mortem inspection of cattle is performed. Butchers are permitted to do some slaughtering on their premises.

Various places handling foods, including restaurants, butcher shops, and bakeries, were inspected. Generally speaking, sanitation was fairly good within the establishments except that occasionally a toilet in bad condition was encountered or a poorly located toilet compartment. Inadequate and improper means for the disposition of garbage and rubbish was a common observation.

Discussion.—In addition to the employees that have already been mentioned, there should be provided a dairy and food inspector, whose duties it would be to maintain a general supervision over foods, especially milk, and places handling foods. This would include the inspection of the producing farms, transportation of milk to the milk plant, the supervision over the methods used in the pasteurizing plants, and the collection of samples for analysis in the laboratory. Producing farms should be scored, laying more importance upon the methods than equipment. All places handling food products should be scored at irregular intervals. All scores should be published in the daily papers.

All milk should be pasteurized by the holding method before being delivered to the consumer.

A municipal abattoir should be erected in which should be slaughtered all animals killed locally for human consumption.

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APPROPRIATIONS AND EXPENDITURES.

There was appropriated to the health department for the fiscal year 1917 the sum of \$7,550.

This may seem like a fair appropriation to the health department until it is explained that of the above amount \$840 represents the salary of a switchboard operator for the police department; \$150 is an allowance made to the chief of police for services as president of the board of health; \$5,350 is to defray the expenses of garbage collection. This leaves but \$1,210 actually spent in the prevention of disease and represents but one-half of 1 per cent of that part of the revenues of the city appropriated for ordinary operation and maintenance of city government (\$234,857), as against 21.3 per cent for fire and 15.8 per cent for police protection. The health department of the city of Quincy has never been properly organized, nor has it ever received sufficient money or encouragement to perform active public health work along modern lines. The health department is entitled to at least 5 per cent of the available revenues of the city, which would amount to about \$12,000. With this sum there could be organized a small but efficient health department as follows:

| | |
|--|----------|
| 1 commissioner of health and local registrar..... | \$2, 000 |
| 1 dairy and food inspector..... | 900 |
| 2 public-health nurses, at \$900 each..... | 1, 800 |
| 1 bacteriologist..... | 1, 000 |
| 1 sanitary inspector..... | 900 |
| 1 clerk and stenographer..... | 720 |
| To maintenance of office, transportation, laboratory, dispensaries, etc..... | 4, 680 |
| Total..... | 12, 000 |

It will be noticed that the above amount does not provide for the collection or disposal of garbage. This activity should not be paid for out of health department funds. There is a law in the State of Illinois which permits a municipality to levy a special tax of not to exceed 2 mills to be expended in the collection and disposal of garbage. This privilege should be made use of by the city.

RECOMMENDATIONS.

As a result of the foregoing study and after careful consideration of conditions, certain definite conclusions have been reached and are made the basis of the following recommendations:

1. That the board of health be abolished.
2. That there be appointed a full-time health officer, to be made directly responsible to the mayor; that he receive not less than \$2,000 per annum; that he hold his position as long as he renders efficient services to the city; that he be a physician who has had previous

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experience in public-health work; that he be required to perform the administrative, epidemiological, and professional duties required in a health department, and that he be prohibited from engaging in the private practice of medicine.

3. That the health officer be permitted to enforce the health ordinances of the city and to carry on his work untrammelled by political considerations and without fear or favor.

4. That he be furnished with the following assistants: One bacteriologist, at not less than \$1,000 per annum; two public-health nurses, at not less than \$900 per annum each; one dairy and food inspector, at not less than \$900 per annum; one sanitary inspector, at not less than \$900 per annum; one clerk and stenographer, at \$720 per annum.

5. That as soon as appointed the health officer start an educational campaign by lectures, talks, newspaper articles, etc., so that the people may be informed as to the aims of the health department and their cooperation secured.

6. That the laboratory equipment in the building occupied by the filtration plant be increased and used jointly by the water department and the health department.

7. That the bacteriologist be required to perform the daily examinations of the water supply of the city, the bacteriological and chemical analyses of milk, the examination of samples submitted in suspected cases of typhoid fever, diphtheria, tuberculosis, gonorrhea, etc., and such examinations as may be necessary to detect carriers, or to determine the release from quarantine.

8. That the school authorities institute a health supervision of schools, including the operation of a dental and an eye, ear, nose, and throat clinic, and the employment of a visiting nurse. That the visiting nurse be attached to the nursing staff of the health department to work with and under the supervision of the health officer.

9. That the nurse employed by the Cheerful Home be attached to the health department to work with and under the supervision of the health officer.

10. That the city then be divided into four districts, and a nurse placed in each district to perform within that district all of the duties of a public health nurse, i. e., the activities relating to the control of the communicable diseases, including tuberculosis, and the work involved in the conservation of child life, including school nursing.

11. That the health department operate a child welfare and anti-tuberculosis dispensary for the benefit of the poorer population of the city. That this dispensary be open at a definite hour of the day as many days in the week as may be necessary and that one of the nurses be in attendance during such time as the dispensary is open.

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12. That the professional services at the dispensary be furnished by the health officer.

13. That the health officer be not required to furnish professional services at the city jail, or at the homes of the indigent sick, but that the present arrangement with the county physician be continued.

14. That section 165 of Article V of the Revised Ordinance of the City of Quincy, requiring vaccination of children as a prerequisite to admission to school, be enforced.

15. That in the case of diphtheria, quarantine be released only after finding two successive negative cultures from the throat and nose.

16. That antituberculosis supplies be issued free of charge in the case of tuberculosis and that disinfectants be issued free of charge in the case of typhoid fever.

17. That the physicians of the city make every effort to report promptly all notifiable diseases, including tuberculosis, and all births and deaths occurring in the city.

18. That the present isolation hospital be renovated, placed in good sanitary condition, and used for the isolation of all communicable diseases that can not be properly isolated in the home.

19. That the county tuberculosis sanatorium be erected without delay, and that it have not less than 50 beds.

20. That the duties of the dairy and food inspector be, to have supervision over the milk supply of the city (producing farms, pasteurizing plants, collection of samples, etc.), and in general the inspection of foods and places selling foods.

21. That the milk supply of the city of Quincy be pasteurized by holding it at a temperature of 145° F. for 30 minutes, followed immediately by cooling and bottling.

22. That the sanitary inspector be made responsible for the elimination of the insanitary privy, the proper handling of manure, the requirement that all householders furnish themselves with a proper garbage tin, and the elimination of stagnant water, breeding mosquitoes.

23. That the abatement of all other nuisances which do not have any direct bearing on the public health be made a duty of the police department.

24. That the sewers be extended to all parts of the city as soon as possible and that where a sewer is available, proper sewer connections be required without delay.

25. That in houses owned by the poor the health department be authorized and money appropriated to have the necessary plumbing installed and sewer connections made, the cost of same to be charged

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as a lien against the property, permitting the house owner to pay in easy installments.

26. That where a sewer is not available the construction of a "sanitary" privy be permitted; the type of privy to be approved by the State board of health.

27. That the citizens of the community cooperate actively with the health department in its effort to control disease and enforce sanitary measures.

28. That inexpensive automobile transportation be furnished to the dairy and food inspector and to the health officer to be used in the field work of the department.

29. That there be appropriated for the support of the health department \$12,000 per annum.

30. That there be organized in the city government a service department to have charge of the cleaning of streets and alleys and the collection and disposal of garbage, rubbish, manure, dead animals, and night soil.

31. That as soon as practicable the city erect an incinerating plant for garbage and a municipal abattoir.

32. That the system of garbage collection be improved and amplified and that a system for the collection of rubbish be inaugurated.

33. That the provisions of the State law authorizing a city of less than 100,000 population to levy a tax of 2 mills to be used in the collection and disposal of garbage be utilized by the city of Quincy.

34. That a building division be organized in the engineering department to have supervision over the construction of new buildings or alterations made to old buildings.

35. That before any such work can be started, plans must be submitted to and must receive the approval of the building division.

36. That a housing code be adopted by the city regulating the construction of all buildings, including tenements, hotels, apartment houses, etc., as to the toilet facilities, light, ventilation, drainage, and all matters relating to the health and safety of the occupants.

37. That the plumbing inspector be placed in the building division.

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